

Claims

1        1. A method of regularly replenishing supplies comprising:

2              (a) providing at the site of a local computerized communications device a

3 human-readable list of items;

4              (b) supplying in machine readable format to the local computerized

5 communications device a message identifying items selected from the list with an instruction to

6 purchase; and

7              (c) automatically, in response to step (b), causing the local computerized

8 communications device to communicate electronically to a remote computer identifying the

9 selected items, quantities of the selected items, and the identity of a purchaser.

1        2. The method according to claim 1, wherein step (c) includes communicating with

2 the remote computer via the internet automatically as a software response to step (b).

1        3. The method of claim 1, further comprising associating with items on the list a

2 machine-readable code.

1        4. The method according to claim 3, wherein associating with items on the list a

2 machine readable code includes associating with items on the list a bar code uniquely identifying

3 the items on the list, and step (b) includes scanning the bar codes of selected items to generate

4 the message identifying selected items.

1        5. The method of claim 1, wherein step (b) comprises communicating via one of a

2 voice recognition software, a wireless radio frequency link and an infrared link.

1        6. The method of claim 1, wherein step (b) comprises communicating via a wireless

2 radio frequency link between a bar code scanner and a receiving circuit coupled to the local

3 computerized communications device.

1        7.     The method of claim 1, wherein step (b) comprises communicating via a wireless  
2     radio frequency link between a bar code scanner and a receiving circuit forming a part of a  
3     dedicated communications device.

1        8.     The method according to claim 2, wherein the local computerized  
2     communications device comprises one of a personal computer, a LAN, a laptop computer, a  
3     palm-size computer, a smart phone, or a dedicated communications device.

1        9.     The method according to claim 2, wherein communicating via the Internet  
2     comprises communicating via at least one of land-line telephony and wireless telephony.

1        10.    The method according to claim 1, wherein providing a human-readable list of  
2     preferred supplies comprises scanning barcodes printed on items to be included in the list and  
3     communicating to the local computerized communications device the identity of the items.

1        11.    The method according to claim 4, further comprising:  
2              providing a display in association with a barcode scanner, and displaying thereon  
3     at least one of the identification of the item the barcode of which has been scanned, the quantity  
4     of the item being ordered, and confirmation of an order.

1        12.    The method according to claim 1, further comprising:  
2              providing and running programming on the local computerized communications  
3     device for responding to step (b) and causing the device to effect step (c), the programming  
4     being adapted to run in the background of other programs run on the local computerized  
5     communications device.

1        13.    The method according to claim 12, wherein the programming has a wait state in  
2     which the program runs unobtrusively behind other active program or programs and is  
3     responsive to an interrupt to present an active user interface.

1           14.     The method according to claim 13, wherein the interrupt is event driven by at  
2     least one of a barcode scanner event, a keyboard event and a mouse event for which the  
3     programming continually polls.

1           15.     The method according to claim 14, further comprising:  
2                 validating a barcode scanned entry upon receipt of a barcode scanner driven  
3     interrupt and adding an item represented by the scanned barcode to a current list of unprocessed  
4     orders.

1           16.     The method according to claim 14, wherein, in response to an interrupt, the  
2     programming presents a user interface having a send order activator.

1           17.     The method according to claim 16, wherein, in response to activation of the send  
2     request activator, the programming causes the local computerized communications device to  
3     send to the remote computer the message identifying the selected items.

1           18.     The method according to claim 17, wherein, after sending the message to the  
2     remote computer, the programming of the local computerized communications device awaits a  
3     confirmation, resends the message in the absence of a confirmation and communicates a  
4     successful transfer to a user upon receipt of a confirmation.

1           19.     The method according to claim 14, wherein, in response to an interrupt, the  
2     programming presents a user interface having a reports activator operative to cause the local  
3     computerized communications device to make available to a local user at least one report relating  
4     to the local computerized communications device past activities using the programming.

1           20.     The method according to claim 19, wherein, the at least one report relating to the  
2     local computerized communications device past activities using the programs includes a report  
3     listing a history of items ordered.

1           21.     The method according to claim 17, wherein, in response to an interrupt, the  
2     programming presents a user interface having a default profile activator making available to a  
3     local user a profile selection.

1           22.     A method of regularly replenishing supplies comprising:  
2               (a)    communicating by telephone from a central installation by interactive  
3     voice response (IVR) a selection of supplies to local clients' telephones,  
4               (b)    receiving by keyed-in responses from the local clients' telephones  
5     identifications of clients' choices of supplies from the selection of supplies,  
6               (c)    aggregating clients' choices of like supplies,  
7               (d)    by computer, via global computer network offering the purchase from  
8     suppliers of supplies thus aggregated, and  
9               (e)    routing purchased supplies from suppliers to clients.

1           23.     The method according to claim 22, further comprising:  
2               gathering and storing records of purchases by clients and determining,  
3     based on the gathered and stored records, clients' projected needs for replenishment of supplies.

1           24.     The method according to claim 23, further comprising:  
2               notifying clients of determined, projected needs for supplies as arrived at  
3     from the gathered and stored records.

1           25.     The method according to claim 23, further comprising:  
2               automatically purchasing clients' determined, projected needs for supplies  
3     as arrived at from the gathered and stored records.

1           26.     The method according to claim 23, further comprising:  
2               offering for sale information accumulated from records gathered and

3 stored.

1        27. A computer program comprising, in a tangible medium:

2            (a) programming responsive to encoded inputs operative to cause a local

3 computerized communication device to prepare a list of user-selected items,

4            (b) further programming for automatically causing the local computerized

5 communication device to connect with a remote computer installation electronically and to

6 communicate the list of user-selected items and further data to the remote computer installation

7 as an order for purchase of the selected items, and

8            (c) additional programming to await a confirming message from the remote

9 computer installation and to produce a confirming communication for a client.

1        28. The computer program according to claim 27, wherein the further programming

2 for automatically connecting comprises routines for connecting to the internet and for addressing

3 the remote computer installation in response to a send signal input by the user.

1        29. The computer program according to claim 28, further comprising:

2            programming operative to cause the computer program to run as

3 background to one or more other active programs running on the local computerized

4 communications device, and input polling programming operative to bring the computer program

5 to run as foreground upon detecting an input.

1        30. The computer program according to claim 27, further comprising:

2            programming responsive to an input from a barcode scanner scanning a

3 product identification code of an item to add that item to the list of user-selected items.

1        31. The computer program according to claim 29, further comprising:

2            programming responsive to an input from a barcode scanner scanning a

3 product identification code of an item to cause the computer program to run as foreground and to  
4 add that item to the list.

1           32. The computer program according to claim 27, further comprising:  
2                         programming operative to generate a list of items and associated barcodes  
3 for use by a client in communicating to the local computerized communication device to input  
4 items to be purchased using a barcode reader.

1           33. The computer program according to claim 27, further comprising:  
2                         voice recognition programming.

1           34. The computer program according to claim 27, further comprising:  
2                         interactive voice response programming.  
1           35. The computer program according to claim 27, further comprising:  
2                         programming operative to store in memory records of purchases using the  
3 computer program.

1           36. The computer program according to claim 35, wherein the programming  
2 operative to store in memory records of purchases further includes report generation routines for  
3 the preparation and presentation of reports based on the records of purchases.

1           37. The computer program according to claim 27, further comprising:  
2                         programming responsive to profile dialog input for bringing up on a  
3 monitor screen a dialog on a default profile.

1           38. The computer program according to claim 35, further comprising:  
2                         programming operative to generate a reminder based on the records of  
3 purchases.

1           39.    The computer program according to claim 38, wherein the programming  
2   operative to generate a reminder comprises program routines and data storage for predicting need  
3   for a regularly purchased item based on history of purchases of the items.

1           40.    The computer program according to claim 27, further comprising:  
2                         programming enabling the local computerized communication device to  
3   communicate between the remote computer and a local reader device.

1           41.    The computer program according to claim 40, wherein the local reader includes a  
2   display, the programming enabling the local computerized communication device to  
3   communicate comprising routines operative to effect display of the confirming message from the  
4   remote computer on the display.

1           42.    The computer program according to claim 41, wherein the programming enabling  
2   the local computerized communication device to communicate comprises routines enabling the  
3   local computerized communication device for wireless communication with the local reader  
4   device.

1           43.    The computer program according to any one of claims 40-42, wherein the local  
2   reader comprises a bar code scanner and the programming enabling the local computerized  
3   communications device to communicate comprises routines enabling the derivation of product  
4   identification information from bar codes.

1           44.    A method of operating a centralized supply order processing site, including:  
2                  (a)   receiving from a plurality of client computers orders for lists of supplies,  
3                  (b)   aggregating like supplies from the lists,  
4                  (c)   offering electronically by global computer network purchases of the  
5   supplies thus aggregated,

6                         (d) receiving electronically by global computer network offers to sell the  
7 supplies identified in step (c),  
8                         (e) ordering the supplies from selected responding suppliers,  
9                         (f) routing the supplies in quantities originally ordered in step (a) to ordering  
10 clients, and  
11                         (g) charging the clients for the supplies routed to them.

1           45.     The method of operating a centralized supply order processing site according to  
2 claim 44, further comprising:

3 prior to step (a), distributing to clients programming for a local  
4 computerized communications devices for electronically assembling and sending via global  
5 computer network the lists of supplies.

1        46. The method of operating a centralized supply order processing site according to  
2 claim 45, wherein the programming distributed to clients includes bar code recognition  
3 programming for deriving the lists, at least in part, from product identifying bar codes.

1        47. The method of operating a centralized supply order processing site according to  
2 claim 45, wherein the programming distributed to clients includes programming automatically  
3 connecting the local computerized communications device to connect automatically and  
4 transparently to the internet as the result of a client completing a list of desired supplies.

1           48.     The method of operating a centralized supply order processing site according to  
2     claim 45, wherein the programming distributed to clients includes voice recognition  
3     programming for deriving the lists, at least in part, from product identifying vocal commands.

1           49.     The method of operating a centralized supply order processing site according to  
2 claim 44, wherein step (a) comprises receiving by interactive voice response (IVR) the lists of  
3 supplies.

1           50.     The method of operating a centralized supply order processing site according to  
2 claim 49, wherein receiving by IVR includes presenting the client with a list of supplies for the  
3 client's response based on that client's past purchasing activities.

1           51.     The method of operating a centralized supply order processing site according to  
2 either claims 44 or 47, further comprising:

3               (a)     sending via global computer network confirmation messages to the  
4 clients' computerized communication devices acknowledging receipt of the lists.

1           52.     The method of operating a centralized supply order processing site according to  
2 claim 44, further comprising:

3               assembling purchasing histories by maintaining a record of clients' supply  
4 lists received over a period of time, determining electronically the apparent frequency and  
5 quantity of at least one of the supplies on clients' lists.

1           53.     The method of operating a centralized supply order processing site according to  
2 claim 52, further comprising:

3               forwarding a notice to a client in anticipation of that client's need for a  
4 supply item based on the determined frequency and quantity of past purchases of the at least one  
5 supply by that client.

1           54.     The method of operating a centralized supply order processing site according to  
2 claim 52, further comprising:

3               automatically effecting steps (b) through (g) based, at least in part, on the

4 determined frequency and quantity of past purchases of the at least one supply by that client.

1           55.     The method of operating a centralized supply order processing site according to  
2 claim 52, further comprising:

3 making available the purchasing histories to third party suppliers or  
4 advertisers of items likely to be purchased.

1           56. The method of operating a centralized supply order processing site according to  
2 claim 45, wherein distributing programming comprises distributing programming operative to  
3 run as background to one or more other active programs on the local computerized  
4 communication device.

1           57. The method of operating a centralized supply order processing site according to  
2 claim 56, wherein the programming operative to run as background comprises includes polling  
3 programming operative to bring the computer program to run as foreground upon detecting an  
4 input.

1           58. The method of operating a centralized supply order processing site according to  
2 claim 44, wherein step (e) comprises selecting a supplier based on at least one of price, delivery  
3 time, quality of product and reliability of supplier.

1           59.     The method of operating a centralized supply order processing site according to  
2     claim 45, wherein distributing to clients programming comprises providing programming in a  
3     dedicated communications device.

1           60.     The method of operating a centralized supply order processing site according to  
2     claim 44, further comprising:

3 at least one of communicating and receiving by the global computer  
4 network, further, non-price terms for the delivery of supplies.

1        61.      The method of operating a centralized supply order processing site according to  
2 claim 60, wherein the non-price terms include at least one of delivery cost, carrier, and delivery  
3 schedule.

1        62.      The method of operating a centralized supply order processing site according to  
2 claim 44, further comprising:

3                         providing a database of product identifications accessible by remote  
4 clients via global computer network, and  
5                         assembling and forwarding to a client a list of supplies as identified from  
6 the database by that client.

1        63.      The method of operating a centralized supply order processing site according to  
2 claim 62, wherein providing a database of product identifications comprises classifying product  
3 identifications by business and non-business endeavors in which the products are used.

1        64.      The method of operating a centralized supply order processing site according to  
2 claim 62, wherein providing a database of product identification comprises structuring the  
3 database in a system of classes and subclasses of product identifications.

1        65.      The method of operating a centralized supply order processing site according to  
2 either claim 62 or 64, wherein assembling a list of supplies includes associating with a human-  
3 readable identification of each item selected by a client from the database a machine readable  
4 code identifying the item listed.

1        66.      The method of operating a centralized supply order processing site according to  
2 65, wherein the machine readable code is a barcode.

1        67.      A computer program comprising, in a tangible medium:  
2                         (a)     programming to aggregate in a central computer installation like supplies

3 from lists of supplies input from remote client communication devices;

4                 (b) further programming to offer, via global computer network, to purchase

5 the supplies thus aggregated;

6                 (c) additional programming to receive from remote suppliers offers to sell the

7 supplies thus offered to be purchased;

8                 (d) other programming to communicate to offering suppliers acceptance of an

9 offer to sell; and

10                 (e) still other programming to communicate to the suppliers instructions for

11 delivery of the supplies among clients from whose lists the supplies have been aggregated.

1         68. The computer program according to claim 67, further comprising:

2                 programming for receiving by interactive voice response the lists of

3 supplies input telephonically from client telephones acting as the remote client communication

4 devices.

1         69. The computer program according to claim 67, further comprising:

2                 programming for receiving the input lists of supplies via global computer

3 network from remote client computers acting as the remote communications devices.

1         70. The computer program according to claim 67, further comprising:

2                 history-based programming for assembling a list of supplies based on a

3 client's past purchasing activities and for communicating the list to the remote communication

4 devices of that client.

1         71. The computer program according to either claim 67 or 69, further comprising:

2                 confirmation programming to send via the global computer network

3 confirmation messages to the clients' communications devices acknowledging receipt of the list  
4 of supplies.

1 72. The computer program according to claim 67, further comprising:  
2 record-keeping programming to assemble purchasing histories by  
3 maintaining a record of clients' supply lists received over a period of time and including at least  
4 one routine for determining electronically the apparent frequency and quantity of at least one of  
5 the supplies on clients' lists.

1 73. The computer program according to claim 72, further comprising:  
2 notification programming to forward a notice to a client in anticipation of  
3 that client's need for a supply item based on the determined frequency and quantity of the at least  
4 one supply on that client's lists.

1 74. The computer program according to claim 72, further comprising:  
2 automatic-ordering programming for automatically including the at least  
3 one of the supplies among the supplies that are offered to purchase based, at least in part, on the  
4 determined frequency and quantity of the at least one supply on that client's list.

1 75. The computer program according to claim 67, further comprising:  
2 selection programming for selecting a supplier based on one of price,  
3 delivery time, quality of product and reliability of supplier.

1 76. The computer program according to claim 67, further comprising:  
2 terms-developing programming for including at further, non-price terms  
3 for the delivery of supplies.

1        77.     The computer program according to claim 76, wherein the terms-developing  
2 programming includes routines for including at least one of delivery cost, carrier, and delivery  
3 schedule.

1        78.     A system for the regular replenishing of supplies including:  
2                (a)    a central computer,  
3                (b)    a plurality of clients' local communications devices,  
4                (c)    a plurality of suppliers' local communications devices,  
5                (d)    a computer program for the central computer including:  
6                        (i)    programming to receive lists of supplies from the plurality of  
7 clients' local communications devices and to aggregate like supplies from received lists of  
8 supplies,  
9                        (ii)   further programming to offer, via suppliers' local communications  
10 devices, to purchase from suppliers the supplies thus aggregated, and  
11                        (iii)   additional programming to communicate to the suppliers, via the  
12 suppliers' local communications devices, instructions for the delivery of the supplies among  
13 clients from whose lists the supplies have been aggregated.

1        79.     The system according to claim 78, wherein the computer program for the central  
2 computer further comprises history-based programming for assembling a list of supplies based  
3 on a client's past purchasing activities and programming communicating the list to the remote  
4 communication devices of that client.

1        80.     The system according to claim 78, wherein the computer program for the central  
2 computer further comprises record-keeping programming to assemble purchasing histories by

3        maintaining a record of clients' supply lists received over a period of time and determining the  
4        apparent frequency and quantity of at least one of the supplies on clients' lists.

1            81.        The system according to claim 80, wherein the computer program for the central  
2        computer further comprises notification programming to forward a notice to a client in  
3        anticipation of that client's need for a supply item based on the determined frequency and  
4        quantity of the at least one supply on that client's lists.

1            82.        The system according to claim 80, wherein the computer program for the central  
2        computer further comprises automatic ordering programming to automatically include the at  
3        least one of the supplies among the supplies that are offered to purchase based, at least in part, on  
4        the determined frequency and quantity of the at least one supply on that client's list.

1            83.        The system according to claim 78, wherein the client's local communications  
2        devices include telephones, and the computer program for the central computer further comprises  
3        programming for receiving by interactive voice response the lists of supplies input telephonically  
4        from client telephones.

1            84.        The system according to claim 78, wherein the computer program for the central  
2        computer further comprises programming for receiving the input lists of supplies via global  
3        computer network from remote client computers acting as the remote communications devices.

1            85.        The system according to claim 78, wherein the plurality of client's local  
2        communications devices include computerized communications devices.

1            86.        The system according to claim 85, wherein the computerized communications  
2        devices that are the clients' local communications devices have supply list preparation  
3        programming.

1        87.    The system according to claim 86, wherein the supply list preparation  
2    programming includes voice recognition enabling clients to dictate supply purchase lists.

1        88.    The system according to claim 86, wherein the supply list preparation  
2    programming includes bar code recognition programming, and the clients' local communications  
3    devices include a bar code scanner.

1        89.    The system according to claim 88, wherein the supply list preparation  
2    programming includes programming for generating a list of supplies and associated bar codes for  
3    use by the bar code scanner.

1        90.    The system according to claim 88, wherein the bar code scanner includes an  
2    attached display and associated programming to cause listed items of supplies to appear on the  
3    display.

1        91.    The system according to claim 90, wherein the computer program for the central  
2    computer comprises programming for sending a confirmation to the clients' local  
3    communications devices, and the associated programming for the display attached to the bar  
4    code scanner includes programming responsive to the confirmation to indicate the confirmation  
5    on the display.

1        92.    The system according to claim 85, wherein the clients' local communications  
2    devices include computers connecting with the central computer via global computer network.

1        93.    The system according to claim 92, wherein the computers connecting with the  
2    central computer via global computer network have supply list communicating programming  
3    adapted to run as background to other, active programs.

1        94.    The system according to claim 78, wherein the plurality of suppliers' local  
2    communications devices include computers adapted to connect to the central computer via global  
3    computer network.